

HatchTrakSM



TOPGUARD[®]
EQ
FUNGICIDE

Control yield robbing diseases in corn with Topguard[®] EQ fungicide, a dual mode of action fungicide premix.

Topguard[®] EQ fungicide, from FMC Agricultural Solutions, is the only premix combining the benefits of a highly systemic and long-lasting Group 3 fungicide, flutriafol, with a top-of-class Group 11 strobilurin fungicide, azoxystrobin. This unique combination broadens the spectrum of diseases for control and offers two modes of action to combat disease resistance.

Topguard EQ fungicide's two modes of action are distinctly different. Flutriafol provides some of the longest residual control in its class and is very mobile in the plant's xylem. Once applied, flutriafol rapidly penetrates the waxy layer of the leaf and moves upward throughout the plant to prevent disease onset. Azoxystrobin inhibits fungal respiration, causing the fungal cells to die, and it also reduces plant stress for improved plant health.

These two active ingredients provide long-lasting, preventative and curative control of major plant diseases, including those that have developed resistance to strobilurin fungicides. In-field trials across the U.S., Topguard EQ fungicide performed equal to or better than competitive standards and provided excellent crop safety. Topguard EQ fungicide is an effective dual mode of action fungicide where a strobilurin alone is not enough to combat yield-robbing diseases.

Target Corn Diseases:

- Gray leaf spot
- Southern corn leaf blight
- Northern corn leaf blight
- Common rust
- Southern rust
- Eyespot
- Anthracnose leaf blight
- Northern corn leaf spot

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Topguard[®] EQ Fungicide

Increasing Yields by Controlling Yield-Robbing Diseases in Corn

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Increase Corn Yields With Fungicides

TOPGUARD[®] EQ FUNGICIDE - A DUAL MODE OF ACTION FUNGICIDE PROVIDING BROAD-SPECTRUM ACTIVITY ON KEY CORN PATHOGENS



COMMON RUST



SOUTHERN RUST



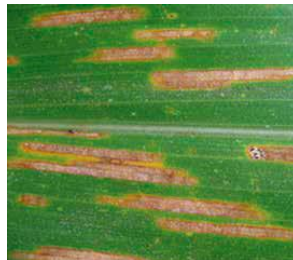
**ANTHRACNOSE
LEAF BLIGHT**



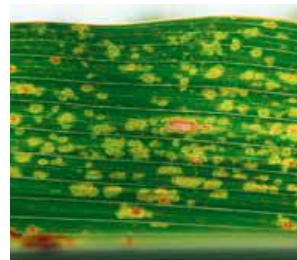
GRAY LEAF SPOT



**NORTHERN CORN
LEAF BLIGHT**



**NORTHERN CORN
LEAF SPOT**



EYESPOT



**SOUTHERN CORN
LEAF BLIGHT**

CORN GUIDELINES

Rate: 5-7 fl. oz./A. Do not apply more than 7 fl. oz./A per application.

Timing:

- When disease first appears.
- Apply no later than growth stage R4 or early dough.

Adjuvant Use:

- May be used prior to the V8 and after the VT growth stage.

REI:

- Five days for detasseling.
- 12 hours for other activities.

PHI: Seven days

Application Interval: Seven days

Maximum Amount/Year: 14 fl. oz.

- Do not apply more than 0.228 lb. of flutriafol per acre per year.
- Do not apply more than 2.0 lbs. of azoxystrobin per acre per year.

Maximum Applications: Two/year



Increase Corn Yields With Fungicides

2018 is setting up to be a Southern rust year in corn, which favors high humidity and temperatures. The persistent moist conditions and Gulf Coastal wind currents are all ideal environmental conditions for the development and spread rust in Southern corn fields.

There are several major foliar diseases affecting corn in the South. These diseases, such as gray leaf spot (*Cercospora zea-maydis*) and Northern corn leaf blight (*Exserohilum turcicum*), will overwinter in the Corn Belt. Rust will not overwinter but will travel northward with prevailing winds from the Southern U.S.

It is very important to distinguish between Southern rust and common rust. When common rust is present, it rarely causes a yield loss whereas Southern rust can cause significant yield losses.

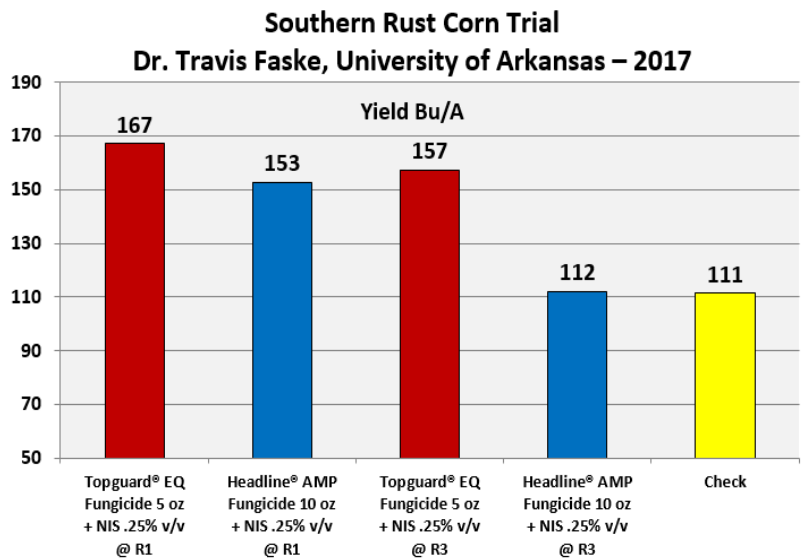
- Common rust is favored by cool, humid conditions, is found on upper and lower leaf surfaces, and is distinguished by elongated red to cinnamon-brown pustules.
- Southern rust is favored by high temperatures and humidities, is found on the upper leaf surface only and more is orange or reddish-orange in appearance. Pustules are small and circular with a pinhead appearance.

Growers should scout corn fields by monitoring stalk quality and presence of diseases as corn maturity progresses. Topguard[®] EQ fungicide provides excellent control of most major corn diseases including Southern rust.



Above: This 2017 trial conducted by Dr. Travis Faske, University of Arkansas, shows corn lodging when infected by Southern rust. Treatments were made at R1 timing at the first presence of Southern rust and at R3 timing. The untreated plot had severe lodging followed by the Headline AMP fungicide treatment with moderate lodging. The least lodging and highest yields were achieved from the R1 timing application with Topguard EQ fungicide treatment.

Right: Topguard EQ fungicide yielded 56 bu. per acre more than the untreated at the R1 timing. The later Topguard EQ fungicide application at R3 timing was 45 bu. per acre higher yield than the Headline AMP fungicide R3 application timings.



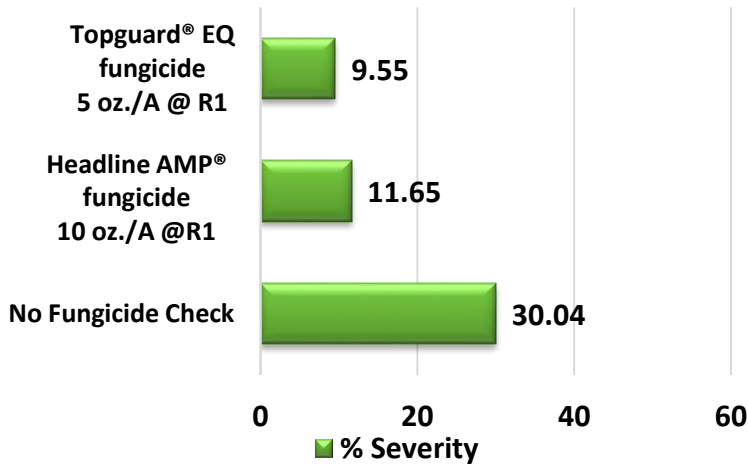


Increase Corn Yields With Fungicides



Northern Leaf Blight Control At R1 Fungicide Application Timing

LSD P=.05 14.6



Source: Dr. Trey Price, LSU AgCenter, Winnsboro, LA - 2017

*All treatments included NIS at 0.25% v/v.

Summary

As mentioned on the previous page, there are several major foliar diseases that affect corn in the Southern U.S. One of these diseases is Northern corn leaf blight (*Exserohilum turcicum*).

The trial data to the left is from a corn trial conducted by Dr. Trey Price, LSU AgCenter in Winnsboro, LA in 2017.

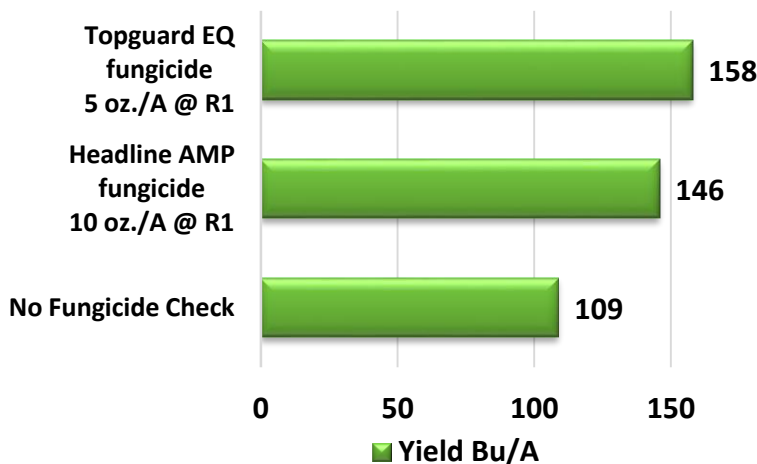
Disease pressure from Northern corn leaf blight (NCLB) was extremely high in this trial. The corn variety planted was Pioneer 1916YHR, a very susceptible NCLB variety.

Fungicide applications were made at the R1 and R2 timings. The best results from disease control and yields were the R1 application timings.

Topguard EQ fungicide application had the lowest percentage severity of NCLB at 10% vs. the untreated check of 30% at the R1 timing.

The R1 application timing of Topguard EQ fungicide at the 5 fl. oz./A rate resulted in a 12 bu/A higher yield over the Headline AMP fungicide application and 49 bu/A yield response over the no fungicide treatment check.

Corn Yield Response to R1 Fungicide Application Timing



Source: Dr. Trey Price, LSU AgCenter, Winnsboro, LA - 2017

*All treatments included NIS at 0.25% v/v.

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